

CLAIMS

1. A filtering device which filters original image data, said original image data having original luminance data and color difference data, comprising:

5 a generating processor that generates first luminance data and second luminance data such that said original luminance data is separated into said first luminance data and said second luminance data according to a predetermined 10 ratio;

a filtering processor that filters said second luminance data so as to transform said second luminance data into third luminance data; and

15 a synthesizing processor that synthesizes said first luminance data, said color difference data, and said third luminance data.

2. A filtering device according to claim 1, further comprising:

20 an image reduction processor which reduces the image resolution corresponding to said second luminance data before said filtering processor filters said second luminance data; and

25 an image restoration processor which restores the image resolution, which has been reduced by said image reduction processor, after said filtering processor filters said second

luminance data.

3. A filtering device according to claim 2, further comprising:

5 a second filtering processor which filters said second luminance data which has been filtered by said filtering processor once already, after said image restoration processor restores said image resolution.

10 4. A filtering device according to claim 2, wherein said image resolution can be selected from a stepwise series of predetermined resolutions.

5. A filtering device according to claim 1, wherein said generating processor generates said first luminance data and said second luminance data independently.

15 6. A filtering device according to claim 5, wherein said original image undergoes a gamma correction using a first gamma curve so as to generate said first luminance data, and said original image undergoes a second gamma correction using a second gamma curve so as to generate said second luminance data, said second gamma curve being different from said first gamma curve.

20 7. A filtering device according to claim 6, wherein said second gamma curve is selected from a stepwise series of predetermined gamma curves.

25 8. A filtering device according to claim 1, wherein said predetermined ratio is selected from a stepwise series of

predetermined ratios.

9. A filtering device according to claim 1, wherein said filtering processor filters said second luminance data using a low-pass filter so as to generate a soft focus image.

5 10. A filtering device according to claim 9, further comprising:

an image reduction processor which reduces the image resolution corresponding to said second luminance data before said filtering processor filters said second luminance data;

10 and

an image restoration processor which restores the image resolution, which has been reduced by said image reduction processor, after said filtering processor filters said second luminance data.

15 11. A filtering device according to claim 10, wherein said original image undergoes a second gamma correction using a second gamma curve so as to generate said second luminance data.

12. A filtering device according to claim 11, wherein at least one of said predetermined ratio, said image resolution, and said second gamma curve are changed so as to change the extant of the soft focus of said soft focus image.

20 25 13. A digital camera which filters original image data, said original image data having original luminance data and color difference data, comprising:

5                   a generating processor that generates first luminance data and second luminance data such that said original luminance data is separated into said first luminance data and said second luminance data according to a predetermined ratio;

10                a filtering processor that filters said second luminance data so as to transform said second luminance data into third luminance data; and

15                a synthesizing processor that synthesizes said first luminance data, said color difference data, and said third luminance data.

14.    A filter processing method for filtering original image data, said original image data having original luminance data and color difference data, comprising the steps of:

15                generating first luminance data and second luminance data such that said original luminance data is separated into said first luminance data and said second luminance data according to a predetermined ratio;

20                filtering said second luminance data so as to transform said second luminance data into third luminance data; and

                  synthesizing said first luminance data, said color difference data, and said third luminance data.